

**SIEMENS**  
*Ingenuity for life*



## SINAMICS S210

The easy, high-performance and safe  
servo drive system

[usa.siemens.com/sinamics-s210](http://usa.siemens.com/sinamics-s210)

# Off to a fast start.

## Precise and reliable in operation

Today, machine builders are facing special challenges with the goal to produce even faster and at lower costs, while satisfying the highest quality demands at the same time. This means, systems that couple maximum efficiency with simple engineering and intuitive operation are needed.

The new, versatile SINAMICS S210 servo drive system is as compact and easy to handle, as it is powerful. The single-axis S210 converter is connected to the SIMOTICS S-1FK2 servomotor, which is specifically developed for it, using just one space-saving cable—and it provides integrated safety functions, as well. Commissioning is completely intuitive using a web server or through the Siemens Totally Integrated Automation Portal (TIA Portal).

SINAMICS S210 addresses a power range from 50 to 750 W currently. The system is particularly well-suited for dynamic, discontinuous applications found in OEM machines. The S210 fully leverages its strengths when the application involves precise positioning and motion control. To achieve high dynamic performance, all motion sequences are executed with the SIMATIC S7-1500 controllers and command the S210 converters via Profinet.

With its powerful performance, SINAMICS S210 is the ideal solution for packaging machines, along with handling systems, woodworking, plastics processing as well as digital printing.

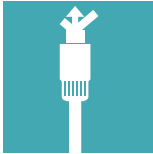






### Easy commissioning using a web server and One Button Tuning

- Integrated web server allows the drive to be commissioned and fully diagnosed without requiring any additional software
- The PLC can directly access the web server in the converter via PROFINET
- One Button Tuning with selectable dynamic levels to adapt the converter to the required machine dynamics allows the controller settings to be simply optimized
- Coming soon: Commissioning via TIA Portal



### Optimized connection system using OCC (one cable connection)

- Only one single cable is required to connect the motor and servo drive (motor power, encoder and brake)
- Time is shortened and space saved as only one cable needs to be installed
- The motor is compact with a small rotatable connector for simple installation and mounting even when space is restricted
- Thin OCC for small bending radii ensures simple cable installation



### SIMOTICS S-1FK2 motors for increased performance

- Low moment of inertia facilitates significantly higher cycle rates
- High resolution encoder with fast sampling for stable and precise closed-loop control
- Automatic converter parameterization using the electronic motor type plate



### Integrated safety functions

- As standard: STO (Safe Torque Off), SS1 (Safe Stop 1) and SBC (Safe Brake Control)
- Coming soon: SS2 (Safe Stop 2), SOS (Safe Operating Stop), SLS (Safely Limited Speed), SSM (Safe Speed Monitor), SDI (Safe Direction) and SBT (Safe Brake Test)
- Controlling the integrated safety functions via PROFIsafe, STO or SS1 also via terminal
- Coming soon: Integrated safety acceptance test for safety functions



### Reduced engineering time with SIMATIC S7-1500 / T-CPU

- Motion control functions through Technology Objects, e.g. positioning or cams, facilitate engineering that is perfectly coordinated with the converter
- Tested application example for connecting the servo drive system to a SIMATIC control available at [www.siemens.com/sinamics-applications](http://www.siemens.com/sinamics-applications)



### Can be used around the world

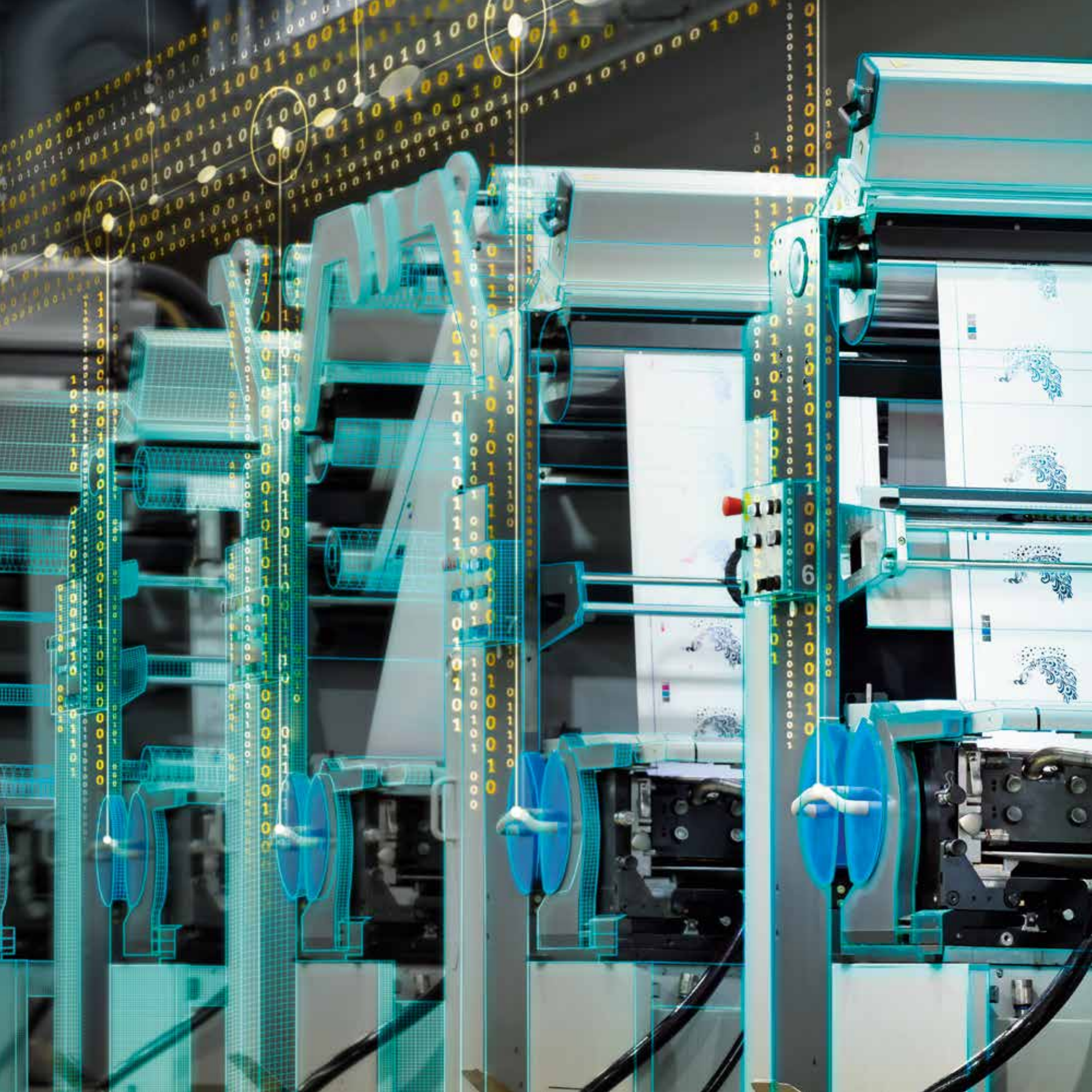
- SINAMICS S210, SIMOTICS S-1FK2 and Motion Connect cables comply with all of the usual certifications—including UL-certified / recognized for North America

# SINAMICS S210 servo drive system

## Technical information

<b>Type</b>	Servo drive system
<b>Application</b>	Discontinuous processing / moving
<b>Power range</b>	1AC 230V: 0.05–0.75 kW 3AC 200-480V up to 7kW*
<b>Torque range</b>	1AC 230V: 0.16–2.4 Nm
<b>Communications</b>	PROFINET / PROFIsafe
<b>Safety functions</b>	STO, SS1, SBC (SS2, SOS, SLS, SSM, SDI, SBT)*
<b>Commissioning / engineering</b>	Web server / Startdrive*
<b>TIA portal integrations</b>	GSD / full integration*
<b>EMC filters</b>	Integrated (1AC 230V: Class C2)
<b>Standards</b>	CE, cULus, cURus, EAC, RCM
<b>Motor connection systems</b>	One Cable Connection (OCC) with SPEED-CONNECT fast connection system and compact, rotatable connector, permissible cable length: 50 m
<b>Typical controls</b>	SIMATIC S7-1500 / SIMATIC S7-1500 T-CPU
<b>Mechanical designs</b>	Single-axis converter, compact design
<b>Motor versions</b>	<ul style="list-style-type: none"> <li>■ Version with low moment of inertia (high-dynamic) and with shaft heights 20–40 mm</li> <li>■ Version with average rotor moment of inertia (compact) in shaft heights 30 mm</li> </ul>
<b>Motor options</b>	Brake, multi-turn or single-turn encoder, keyway, shaft sealing ring

\*Coming soon



**There's more to it.**

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**[usa.siemens.com/sinamics](http://usa.siemens.com/sinamics)**

**Everything about our drive family can be found online.**

**SINAMICS — one family, one source, all applications**

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